

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

REMARKS

This Amendment serves as the submission accompanying Applicants' Request for Continued Examination (RCE) filed pursuant to 37 C.F.R. §1.114. By final Office Action mailed August 27, 2003, all pending claims stood rejected, reconsideration of which is respectfully requested in view of the above amendments and following remarks.

Claims 24-43 are currently pending. Claim 24 has been amended as discussed in greater detail below. Claim 26 has been amended to correct a typographical error; namely, the term "styreneacrylic" has been replaced with "styrene acrylic."

As an initial matter, Applicants thank the Examiner for the courtesy extended the undersigned during the telephone interview of October 15, 2003. During that interview, the Examiner indicated that the rejection based on U.S. Patent No. 6,028,028 to Nitta would be overcome if claim 24 was amended in the manner proposed (*i.e.*, that the coating layer penetrates at least one of the two sides of the substrate). However, the Examiner continued to maintain the rejection of the pending claims based on U.S. Patent No. 5,919,552 to Malhotra.

During the telephone interview, Applicants also indicated that a Request for Continued Examination (RCE) would be timely filed to continue prosecution of this application. To that end, it was Applicants' intention to await receipt of the written summary of the telephone interview before filing the RCE.¹ However, rather than postponing the filing of the RCE further, Applicants will again address patentability of the pending claims over Nitta, and then turn to the outstanding rejection based on Malhotra.²

Patentability Over Nitta

The Examiner has relied upon Nitta for teaching "impregnantly covering" a cellulosic substrate (*see* August 27th Office Action at page 7, first full paragraph). This feature,

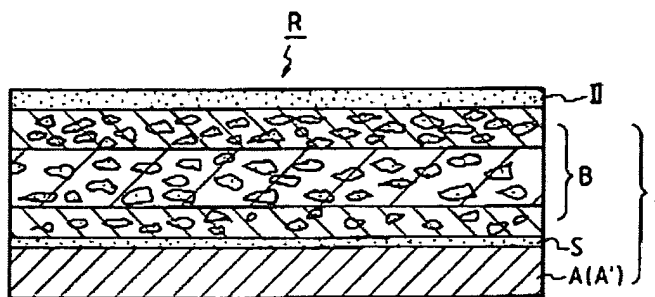
¹ By way of reminder, the undersigned attorney has telephoned the Examiner requesting that a copy of the same be sent.

² The text of the August 27th Office Action was largely carried forward from the prior Office Action of March 31, 2003, to which Applicants have previously responded by way of Amendment filed June 12, 2003. However, the Examiner's comments set forth on pages 6-7 of the August 27th Office Action (under the heading "Response to Arguments") are understood by Applicants to constitute the substantive grounds for maintaining the outstanding rejections, and thus are the focus of this Amendment.

however, is not taught or suggested by Nitta (at least as the term “impregnantly covering” is used in the context of this invention). Rather, Nitta is directed to gluing a relatively stiff film, such as a polypropylene film, to one side of a fabric, and in no instance does Nitta teach or suggest impregnantly covering one side of a cellulosic substrate with a weatherproofing coating layer.

Referring to the following Figure 1 of Nitta, a “water proof” stiff film sheet (B) is glued to either a plain weave fabric (A) or a nonwoven fabric (A') using adhesive (S). Even if you equate the stiff film sheet (B) of Nitta with the durable weatherproofing coating layer of the present invention, Nitta does not teach or suggest “impregnantly covering” a cellulosic substrate (e.g., a fabric) with such a material since film sheet (B) clearly does not penetrate into the substrate itself.

FIG. 1



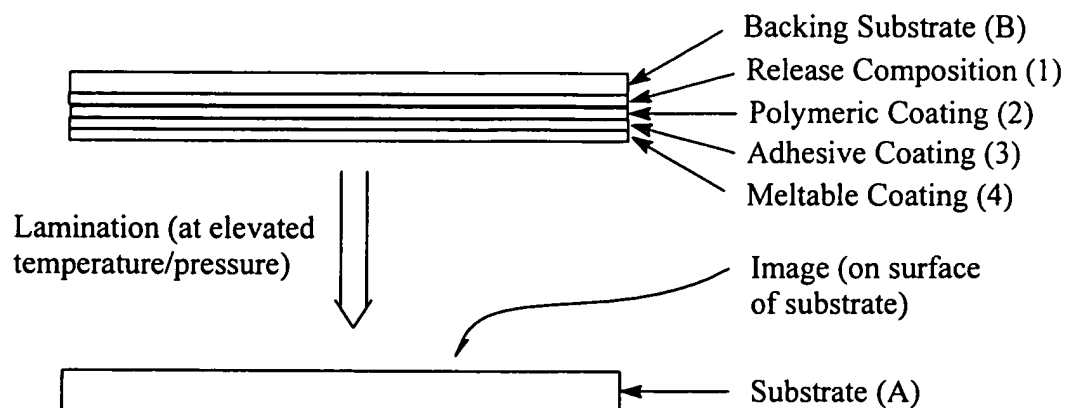
To further clarify this distinction, Applicants have amended claim 24 to recite that the durable weatherproofing coating layer penetrates the surface of the at least one of the two sides of the substrate. Support for this amendment may be found throughout the specification, such as page 10, lines 2-3 (“The cellulosic substrate is said to be impregnantly covered with a coating layer, when the coating layer penetrates the surface to at least some degree.”)

During the telephone interview of October 15th, the Examiner had indicated that this amendment would be sufficient to overcome the outstanding rejection based on Nitta. Accordingly, Applicants respectfully request that this ground of rejection now be withdrawn.

Patentability Over Malhotra

In general terms, Malhotra is directed to a coated substrate and a method for creating gloss on an image (*see* Abstract, line 1). Substrates in this regard include both plastic and paper (*see* col. 3, lines 31-65). Upon the substrate is an image which, as characterized in the Abstract at lines 2-4, is a "right reading toner image formed thereon using a nonphotographic imaging process." The substrate having the image thereon is then laminated with a "backing substrate" at elevated temperature and pressure (*see* Abstract, starting at 5 lines from the bottom). Such a lamination process has utility for "for producing enhanced simulated color photographic-quality prints using nonphotographic imaging processes such as xerography" (*see* col. 4, lines 4-6).

For purpose of convenience, Applicants have depicted the coated substrate of Malhotra below; namely, substrate (A) having an image thereon and backing substrate (B). Backing substrate (B), in turn, has the following four coating layers thereon (*see* Abstract, lines 5-19): (1) a release composition comprised of a release polymer and a monomeric release molecule ("release composition"); (2) a scuff resistant, lightfast, waterfast transparent polymeric coating comprised of a hydrophobic binder, a lightfastness inducing agent, an antistatic agent, a flavor imparting material, and a filler ("polymeric coating"); (3) an adhesive coating comprising a polymeric adhesive binder having a glass transition temperature of between -50°C to about 55°C , an antistatic agent, and a lightfastness composition ("adhesive coating"); and (4) toner wetting coating comprising a hydrophilic polymer having a melting point of from about 50°C to about 100°C ("meltable coating").



Upon “hot-press” lamination of backing substrate (B) onto substrate (A), the polymeric coating becomes adhered to substrate (A) via adhesive coating (3). Following removal of backing substrate (B) via release of release composition (1), a glossy surface is generated on the surface of substrate (A) having the image thereon (*see* Abstract, last 5 lines). As the Examiner will appreciate, hot-press lamination at a temperature ranging from about 120-180°C will melt the meltable coating (4), which has a melting point of from about 50-100°C (*see* col. 5, lines 57-58). As explained at col. 5, lines 58-60, “[t]he purpose of the fourth coating is [to] prevent the third coating adhesive binder from being active until it is exposed to heat and pressure.” In other words, “meltable” coating (4) serves to isolate the adhesive layer prior to being hot-pressed onto substrate (A).

Thus, as with Nitta discussed above, Malhotra is also directed to a laminated substrate, the difference being that Nitta glues film (B) to one side of substrate (A/A') via adhesive layer (S) (*see above* Figure 1 of Nitta), while Malhotra involves a hot-press lamination of polymeric coating (2) via adhesive coating (3) having meltable coating layer (4) applied thereto for isolating the adhesive layer prior to the hot-press lamination step.

If you equate polymeric coating (2) of Malhotra with the durable weatherproofing coating layer of the present invention, Malhotra does not teach or suggest “impregnantly covering” a cellulosic substrate therewith. As discussed above in the context of Nitta, Applicants have amended claim 24 to recite that the durable weatherproofing coating layer penetrates the surface of the at least one of the two sides of the substrate. The polymeric coating (2) of Malhotra clearly does not penetrate substrate (A). If this were not the case, and polymeric coating (2) did penetrate substrate (A), then there would be no need for adhesive layer (3) of Malhotra, nor would there be a need for the meltable coating layer (4) to isolate the adhesive layer prior to hot-press lamination. Rather, Malhotra merely teaches a coated substrate made by gluing a polymeric coating onto a substrate via an adhesive.

In stark contrast to Malhotra (as well as Nitta), the present invention is directed to a durable weatherproofing coating layer impregnantly covering at least one of the two sides of the substrate, and wherein the coating layer penetrates the same. Such a feature is not taught or suggested by either of these two patents, taken in isolation or combination. Further, both of

these references teach away from the claimed subject matter by requiring an intermediate adhesive layer between film (B) of Nitta or polymeric coating (2) of Malhotra and the substrate itself. In the present invention, the durable weatherproof coating layer is in direct and penetrating contact with at least one surface of the cellulosic substrate. To further clarify this difference, Applicants have also amended claim 24 to recite that the durable weatherproofing coating layer is in "direct contact with and impregnantly covering at least one of the two sides of the substrate." Support for this amendment may be found throughout the specification, including at page 15, lines 10-14, which discusses the steps of making the claimed weatherproof sheet, which process involves the direct application of the weatherproof coating to the surface of the substrate without the addition of any intervening adhesive layer.

Accordingly, in view of the above amendments and remarks, Applicants respectfully submit that claims 24-43 are patentable over the cited references, and request that these claims be passed to allowance. A good faith effort has been made to place this application in condition for allowance. However, should any further issue require attention prior to allowance, the Examiner is requested to contact the undersigned at (206) 622-4900 to resolve the same.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC



Karl R. Hermanns

Registration No. 33,507

KRH:lhk

701 Fifth Avenue, Suite 6300
Seattle, Washington 98104-7092
Phone: (206) 622-4900
Fax: (206) 682-6031

D:\500035.401 \432753_1.DOC